

**REMARKS*****Status of the Claims***

Claims 15-22, 29, and 30 are pending in the application. In this Response, claims 15-22 have been amended, claims 23-28 have been cancelled, and new claims 29 and 30 have been added.

Exemplary support for the amendments and new claims can be found throughout the claims and specification as filed. See, for example, page 6, lines 1-2, page 12, lines 26-30, and page 23, lines 10-15. Therefore, no new matter has been added.

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

***Rejection under 35 U.S.C. § 112***

Claims 15-28 have been rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for the disclosed substituents, does not reasonably provide enablement for all of the encompassed substituents by the claimed recitation of "substituted" in claim 15.

Applicants respectfully submit that as claim 15 has been amended recite "R<sub>1</sub> and R<sub>2</sub>, which are different or identical, are aliphatic radicals with no aromatic nucleus, substituted or unsubstituted, and optionally are alkyls", the term "substituted" is sufficiently enabling in the manner disclosed at page 12, lines 26-30 of the specification. As the Examiner agrees that the specification is sufficiently enabling for the disclosed substituents, Applicants respectfully submit that amended claim 15 is also sufficiently enabling for at least the same reasons.

Accordingly, Applicants respectfully submit that the rejection under 35 U.S.C. § 112, first paragraph should be withdrawn.

***Rejection under 35 U.S.C. § 102***

Claims 15-28 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent Publication Number 2001/0021746 ("Nabavi"). The rejection is respectfully traversed.

A claim is anticipated only if *each and every* element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal*

*Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added).

Nabavi relates to isocyanate-based compounds and compositions. (Page 1, paragraph [0001]). Nabavi discloses composition based on isocyanate(s), advantageously not completely masked, characterized in that it comprises at least one compound containing an anionic functional group and advantageously a polyethylene glycol chain fragment of at least one, preferably at least 5 ethyleneoxy units. (Claim 1).

In contrast, amended independent claim 15 recites ***an emulsion for adhesive*** comprising, for successive or simultaneous addition: an isocyanate composition (a) with a mass content of N=C=O function of between 10% and 30%, optionally from 15% to 25% and with a viscosity of not more than 2500 mPa.s, optionally not more than 1500 mPa.s, and with ***a particle size  $d_{50}$  of not more than 25  $\mu\text{m}$  and, optionally not more than 22  $\mu\text{m}$ , for a polydispersity index of not more than 1.5, and optionally not more than 1.3***; a surfactant (b) comprising a compound or a mixture of compounds of mean general formula:



wherein: p represents a value between 1 and 2; m represents zero or 1; the sum p+m+q is equal to 3; the sum 1+p+2m+q is equal to 3 or 5, optionally 5; X is an oxygen; X' is an oxygen; n and s have the same statistical value, chosen between 5 and 30, optionally between 9 and 20, wherein R<sub>1</sub> and R<sub>2</sub>, which are different or identical, are chosen from aliphatic radicals with no aromatic nucleus, substituted or unsubstituted, optionally alkyls; and ***an aqueous phase with a pH of between 4 and 9***, optionally bearing an adhesive polymer.

Initially, Applicants strongly rebut the Examiner's assertion regarding the equivalence between coatings and adhesives. Although a coating adheres to the surface of a substrate, a coating serves at modifying the surface and/or modifying the aspect of the surface. An adhesive, within the meaning of the present disclosure, serves at bonding two substrates together, more precisely at joining together at least two surfaces, as explained on page 9, lines 6-15 and in Example 2 of the present disclosure. An adhesive is, therefore, not a coating in

the sense of the present disclosure, and the claimed emulsion for adhesive is neither disclosed nor suggested by Nabavi.

Moreover, Applicants respectfully submit that Nabavi does not disclose an emulsion for adhesive, as presently recited in amended independent claim 15. Nabavi further does not disclose a particle size  $d_{50}$  of not more than 25  $\mu\text{m}$  and, optionally not more than 22  $\mu\text{m}$ , for a polydispersity index of not more than 1.5, and optionally not more than 1.3, as presently recited in amended independent claim 15. Nabavi also does not disclose an aqueous phase with a pH between 4 and 9, as presently recited in amended independent claim 15.

Applicants respectfully submit that Nabavi fails to disclose *each and every* element recited in amended independent claim 15.

As such, in light of at least the foregoing, Applicants respectfully submit that the anticipation rejection over Nabavi should be withdrawn.

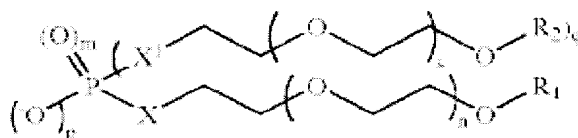
***Claim Rejections under 35 U.S.C. § 103(a)***

Claims 15-28 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Nabavi. The rejection is respectfully traversed.

The Office has the initial burden of establishing a *factual basis* to support the legal conclusion of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). For rejections under 35 U.S.C. § 103(a) based upon a combination of prior art elements, in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007), the Supreme Court stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some *articulated reasoning with some rational underpinning* to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (emphasis added).

Nabavi relates to isocyanate-based compounds and compositions. (Page 1, paragraph [0001]). Nabavi discloses composition based on isocyanate(s), advantageously not completely masked, characterized in that it comprises at least one compound containing an anionic functional group and advantageously a polyethylene glycol chain fragment of at least one, preferably at least 5 ethyleneoxy units. (Claim 1).

In contrast, amended independent claim 15 recites *an emulsion for adhesive* comprising, for successive or simultaneous addition: an isocyanate composition (a) with a mass content of N=C=O function of between 10% and 30%, optionally from 15% to 25% and with a viscosity of not more than 2500 mPa.s, optionally not more than 1500 mPa.s, and with *a particle size  $d_{50}$  of not more than 25  $\mu\text{m}$  and, optionally not more than 22  $\mu\text{m}$ , for a polydispersity index of not more than 1.5, and optionally not more than 1.3*; a surfactant (b) comprising a compound or a mixture of compounds of mean general formula:



wherein: p represents a value between 1 and 2; m represents zero or 1; the sum  $p+m+q$  is equal to 3; the sum  $1+p+2m+q$  is equal to 3 or 5, optionally 5; X is an oxygen; X' is an oxygen; n and s have the same statistical value, chosen between 5 and 30, optionally between 9 and 20, wherein  $R_1$  and  $R_2$ , which are different or identical, are chosen from aliphatic radicals with no aromatic nucleus, substituted or unsubstituted, optionally alkyls; and *an aqueous phase with a pH of between 4 and 9*, optionally bearing an adhesive polymer.

Applicants respectfully submit that Nabavi does not disclose or suggest an emulsion for adhesive, as presently recited in amended independent claim 15. Nabavi further does not disclose or suggest a particle size  $d_{50}$  of not more than 25  $\mu\text{m}$  and, optionally not more than 22  $\mu\text{m}$ , for a polydispersity index of not more than 1.5, and optionally not more than 1.3, as presently recited in amended independent claim 15. Moreover, Nabavi does not disclose or suggest an aqueous phase with a pH between 4 and 9, as presently recited in amended independent claim 15.

Applicants respectfully direct the Examiners attention to the present specification, wherein it is disclosed that the size (the granulometry) of the emulsions play a major role in the quality of the final adherence between two substrates. The specification further discloses that it is thus preferable that the isocyanate has a particle size  $d_{50}$  of not more than 25  $\mu\text{m}$  and, optionally not more than 22  $\mu\text{m}$ , for a polydispersity index of not more than 1.5, and optionally not more than 1.3. (See, for example, page 9, lines 6-15, page 23, lines 1-15, and Example 2).

It is respectfully submitted that Nabavi does not disclose or suggest an emulsion for adhesive let alone an emulsion for adhesive that achieves an unexpected improvement in the quality of the final adherence between two substrates.

Applicants further strongly rebut the Examiner's assertion regarding the equivalence between coatings and adhesives. Although a coating adheres to the surface of a substrate, a coating serves at modifying the surface and/or modifying the aspect of the surface. An adhesive, within the meaning of the present disclosure, serves at bonding two substrates together, more precisely at joining together at least two surfaces, as explained on page 9, lines 6-15 and in Example 2 of the present disclosure. An adhesive is, therefore, not a coating in the sense of the present disclosure, and the claimed emulsion for adhesive is neither disclosed nor suggested by Nabavi.

As such, in light of at least the foregoing, Applicants respectfully submit that the obviousness rejection over Nabavi should be withdrawn.

#### ***New Claims***

New claims 29 and 30 have been added. Exemplary support for the new claims can be found throughout the claims and specification as filed. See, for example, page 12, lines 26-30 and page 23, lines 10-15.

Applicants respectfully submit that as dependent claim 29 depends from independent claim 15, claim 29 is patentable over Nabavi for at least the same reasons as amended independent claim 15 is patentable over Nabavi.

Applicants further respectfully submit that independent claim 30 is patentable over Nabavi because Nabavi does not disclose or suggest all the features recited in new independent claim 30. More particularly, Applicants respectfully submit that Nabavi at least does not disclose or suggest a composition for adhesive comprising an isocyanate composition (a) and a surfactant (b), wherein the isocyanate composition (a) further comprises a portion ranging from 5% to 20% by mass of reactive solvent comprising at least one molecule chosen from dimers, bis-dimers, monoallophanates, polymethylene diisocyanates and di-, tri- or tetrafunctional monomers with a molecular mass at least equal to 200.

As such, Applicants respectfully submit that new claims 29 and 30 are patentable over Nabavi.

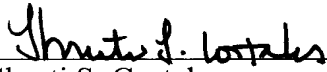
***Conclusion***

In view of at least the foregoing amendments and remarks, reconsideration of the claims and allowance of the subject application is earnestly solicited. In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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